

Work Order ID 91811

91811

October-18-12 2:47:25 PM

Page 1

Item ID: 647.1302

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Removable Provisions

Stop

NS2

Start Date: 18/10/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 01/11/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:	Process Plan: <u>ML5</u>	Date: <u>12-10-18</u>	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	
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647.1300	A	<i>fb</i>
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100		0.00	<i>DAS</i>	<i>16</i>	<i>9-18</i>	<i>13/03/28</i>			
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100	DOCUMENT CONTROL	0.00	<i>DAS</i>	<i>16</i>	<i>9-18</i>	<i>13/03/28</i>			
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DC	Memo	0.00	<i>13/03/28</i>						
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Document Control	Photocopy bluefile & type labels per PPP 647.1302								
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110	Pick Kit	0.00							
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110	DOCUMENT CONTROL	0.00							
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Packaging	Memo	0.00							
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Packaging									
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120	QC4- 100% Inspect kits for completeness	0.00	<i>(DAS)</i>	<i>16</i>	<i>9-18</i>	<i>13/03/28</i>			
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120	DOCUMENT CONTROL	0.00							
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QC	Memo	0.00							
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Quality Control									
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DAS
06
9-18

13-03-28

13-03-2013

fb →

XU

NCR: Yes No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: <u>91811</u>	DISPOSITION			AGAINST DEPARTMENT/PROCESS				
Part No. <u>647.1302</u>	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input checked="" type="checkbox"/>	Quality <input type="checkbox"/>			
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
	Work Order Update <input checked="" type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	13/3/20	#	#	Qty's wrong From IIN instructions to w/o + BOM.	DAS 16 0-83	Adjust qty's of these parts. WAS1149FW832 P Should be 4x4 not 18			DAS 16 0-83
Equip/Tooling					QS2042 13/3/20	WAS1149FO332 P Should be 4x36 not 32			QS2042 13/3/20
Operator						ADD copy of BOM for Ref			
Material						to work order			
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY									
Landing Gear	General								
	<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
	<input type="checkbox"/> Centre Not Concentric to O/S	<input checked="" type="checkbox"/> BOM/Route	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
	<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
	<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Burrs	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
	<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Part Moved						
	<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Positioned Wrong						
	<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
	<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	R.C. BOM + work order not created correctly.						
	<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing							
	<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish							
	<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio							

Work Order ID 91811

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91811

Page 2

Item ID: 647.1302

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Removable Provisions

Start Date: 18/10/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 01/11/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

130

Packaging

Packaging

0.00

(DAS
06
28)

(3/3/28)

Packaging

Memo

0.00

Identify and pack for shipping as per PPP 647.1302
Location: _____

140

140

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

13/3/28

13/3/28

MUS 13-03-28

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order:		DISPOSITION			AGAINST DEPARTMENT/PROCESS						
Part No.:		Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
NCR No.:		Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
		Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
		Work Order Update	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear		General									
		Bending	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced			
		Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure			
		Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld			
		Crushed/Crimped	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled			
		Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>				
		Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>				
		Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>				
		Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>		<input type="checkbox"/>	Other			
		Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>		<input type="checkbox"/>				
		Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>		<input type="checkbox"/>				
		Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>		<input type="checkbox"/>				

Picklist Print

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Page 1

Work Order ID: 91811

91811

Parent Item: 647.1302

647 1302

Parent Item Name: Removable Provisions

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.05 NEW ISSUE DD VERF:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.1401 *647 1401* Upper Cutter Assembly		Manufactured		No			Each	0.0000	**	1	1X B98724.88		
647.1402 *647 1402* Lower Cutter Assembly		Manufactured		No			Each	0.0000	**	1	1X B98725.88		
647.1701 *647 1701* Skid Deflector Assembly		Manufactured		No			Each	0.0000	**	2	2X 98726		
647.2110 *647 2110* Lower Rail		Manufactured		No			Each	0.0000	**	1	1X 125082	13-03-28	
647.0112 *647 0112* Strut Bracket		Manufactured		No			Each	0.0000	**	4	4X 92065.20		
647.2011 *647 2011* Lower Strut		Manufactured		No			Each	0.0000	**	2	2X 125082	13-03-28	
AN3-11A *AN3-11A* Bolt		Purchased		No			Each	346.0000	**	6	6X -	13-03-20	

Location	Loc Qty	Loc Code
ST351	346	
110865	46	
115457	100	
123352	200	
		110865

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS						
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>					
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>					
	Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>						
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>					
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>							
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>							
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>							
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>							

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Page 2

Work Order ID: 91811

91811

Parent Item: 647.1302

647 1302

Parent Item Name: Removable Provisions

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C10A

Purchased

No

Each 34.0000

**

2

hb

AN3C10A

Bolt

Location	Loc Qty	Loc Code
ST351	34	
112489	1	
119798	33	

AN525-10R12

Purchased

No

Each 267.0000

**

119798

4

JB

JB

AN525-10R12

Screw

Location	Loc Qty	Loc Code
ST345	267	
102587	267	

NAS1149F0332P

Purchased

No

Each 1,274.000

**

102587

JB

13-03-20

NAS1149F0332P

WASHER

Location	Loc Qty	Loc Code
275	298	
122441	298	
ST275	776	
117735	13	
119225	8	
121259	138	
121825	14	
122063	600	
17317	3	
ST295	200	
123352	200	

M123900

JB

JB

13-03-20

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS							
		Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>	
		Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>	
		Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>	
		Work Order Update	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube			General								
				<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced	
				<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure	
				<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld	
				<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled	
				<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>		
				<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>		
				<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other	
				<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset	<input type="checkbox"/>		<input type="checkbox"/>		
				<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>		
				<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>		
				<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>		

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Work Order ID: 91811

91811
647 1302

Parent Item: 647.1302

Parent Item Name: Removable Provisions

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1149FN832P

Purchased

No

Each

523.0000

4 18
**

✓
JB

NAS1149FN832P

Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
275	198	
122441	198	
ST275	125	
115158	125	115158
ST294	200	
123352	200	

MS21042-3

Purchased

No

Each 500.0000

**

JB

MS21042-3

USE MS21042L3

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST315	500	
123352	500	

MS21042-08

Purchased

No

Each 142.0000

**

JB

MS21042-08

USE MS21042L08

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST300	42	
103668	42	
ST316	100	
123352	100	123352

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS						
		Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
		Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
		Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
		Work Order Update	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear		General									
		Bending	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced			
		Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure			
		Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld			
		Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled			
		Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>				
		Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>				
		Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>				
		Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>		<input type="checkbox"/>	Other			
		Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>		<input type="checkbox"/>				
		Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>		<input type="checkbox"/>				
		Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>		<input type="checkbox"/>				

Picklist Print

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Work Order ID: 91811

91811

Parent Item: 647.1302

647 1302

Parent Item Name: Removable Provisions

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased No

Each 5,406.000

**

4

123900 JB

MS21042L4

Nut

Location	Loc Qty	Loc Code
314	1479	
122452	1479	
ST300	27	
119017	20	
121444	7	
ST314	3900	
123021	3000	
123248	900	

601.2045

Purchased No

Each 0.0000

**

1

124993 JB

601.2045

RTV (One tube)

647.2010

Manufactured No

Each 0.0000

**

2

91895 JB 13-03-20

647.2010

Strut

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS						
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>					
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>					
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>					
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear				General								
	<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced		
	<input type="checkbox"/>	Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure		
	<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld		
	<input type="checkbox"/>	Crushed/Crimped	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled		
	<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>			
	<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
	<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>			
	<input type="checkbox"/>	Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset	<input type="checkbox"/>		<input type="checkbox"/>	Other		
	<input type="checkbox"/>	Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>			
	<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>			
	<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>		<input type="checkbox"/>			

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 03084				SHEET 1 JF 1
DWG NO. 647.1300		REV: A	PREPARED BY: N.CAP	DATE: 03/31/11
DWG TITLE: EC145 CABLE CUTTERS KIT				
APPROVED BY:	ENGR <i>P. Jane</i>	MFG <i>Dawn Bur</i>	QC <i>Frank Legan</i>	EFF: NEXT ORDER
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE		REASON: REVISED F/N 42 AND F/N 43 QUANTITIES ON BILL OF MATERIALS		

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ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 91811 MJS
12-10-18

43	R	601.3010	4	4	SCREW	MS27039-0810			
42	R	601.3224		4	SCREW	AN525-10R12			
F/N	TC	PART NUMBER	.1303	.1302	DESCRIPTION		MATERIAL		
QTY .1301									
DOCUMENTS EFFECTED:									
<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUC <input type="checkbox"/> ICA <input checked="" type="checkbox"/> BOM				CHANGE CATEGORY	DER REVIEW REQUIRED				
<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR				YES	<input checked="" type="checkbox"/> NO				

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NOTES: UNLESS OTHERWISE SPECIFIED

 AFTER INSTALLATION, APPLY F/N 73 A/R
TO FILL GAPS AND FILLET EDGES

2. APPLY F/N 74 TO FAYING SURFACES

 AT CUSTOMERS OPTION, INSTALL F/N 77
BY MATCH DRILLING ONTO F/N 1

UNINCORPORATED ECN(s)

13084

A

REF	R&F	REF	17	647.5701	GPS MOUNT KIT	3	
2	2	76	601.1954	SCREW	MS27039-1-17		
2	2	75	647.2010	UPPER STRUT			
1	1	74	601.2045	RIV	LOCHITE 598		
1	1	73	600.1012	SEALANT	PR-1425 CLASS B		
1	1	72	600.0991	MAGNOBOND 6398 PART B			
1	1	71	600.0990	MAGNOBOND 6398 PART A			
4	4	70	601.3012	SCREW	MS27039-1-15		
2	2	69	601.3004	CAMLOC STUD			
2	2	68	601.3005	CAMLOC RETAINER			
2	2	67	601.3006	CAMLOC RECEPTACLE			
3 FT.	3 FT.	66	601.3011	P-SEAL			
1.1 FT.	1.1 FT.	65	601.3007	GROMMET	MS21266-2N		
2	2	64	601.3008	INSERT	NAS1834C-300		
12	12	63	601.2364	RIVET	CR3213-4-5		
16	16	62	601.2466	RIVET	CR3213-4-7		
11	11	61	601.2991	RIVET	CR3213-4-6		
2	2	60	601.1039	RIVET	CR3213-4-2		
8	8	59	601.1183	RIVET	CR3213-4-5		
22	22	58	601.0790	RIVET	CR3213-4-3		
8	8	57	601.2995	RIVET	CR3213-6-4		
4	4	56	601.1915	RIVET	CR3213-4-4		
12	12	55	601.2207	NUTPLATE RIVET	CCR2645S-3-03		
4	4	54	601.1983	NUTPLATE RIVET	CCR2745S-3-03		
12	12	53	601.2980	NUTPLATE RIVET	CCR2645S-3-04		
12	12	52	600.0795	NUTPLATE	MS21047-3		
4	4	51	601.3209	LOCKNUT	MS21042L4		
5	4	50	601.2973	LOCKNUT	MS21042-08		
29	16	49	601.2943	LOCKNUT	MS21042-3		
3	3	48	601.2375	WASHER			
10	8	47	601.2744	WASHER	NAS1149FN832P		
70	32	102	46	601.1607	WASHER	NAS1149F0332P	
1	1	45	601.2525	SCREW	MS27039-0807		
4	4	44	601.1952	SCREW	MS27039-1-20		
4	4	43	601.3010	SCREW	MS27039-0810		
4	4	42	601.3224	SCREW	AN525-10R12		
6	6	41	601.1365	SCREW	MS27039-1-10		
3	3	40	601.2198	SCREW	MS27039-1-07		
3	3	39	601.2999	SCREW			
18	18	38	601.2459	SCREW	MS27039C1-06		
4	4	37	601.1622	SCREW	MS27039-1-14		
10	10	36	601.2051	SCREW	MS24694C52		
2	2	35	601.2823	BOLT	AN3-4A		
1	1	34	601.1324	BOLT	AN4CH6A		
.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

B

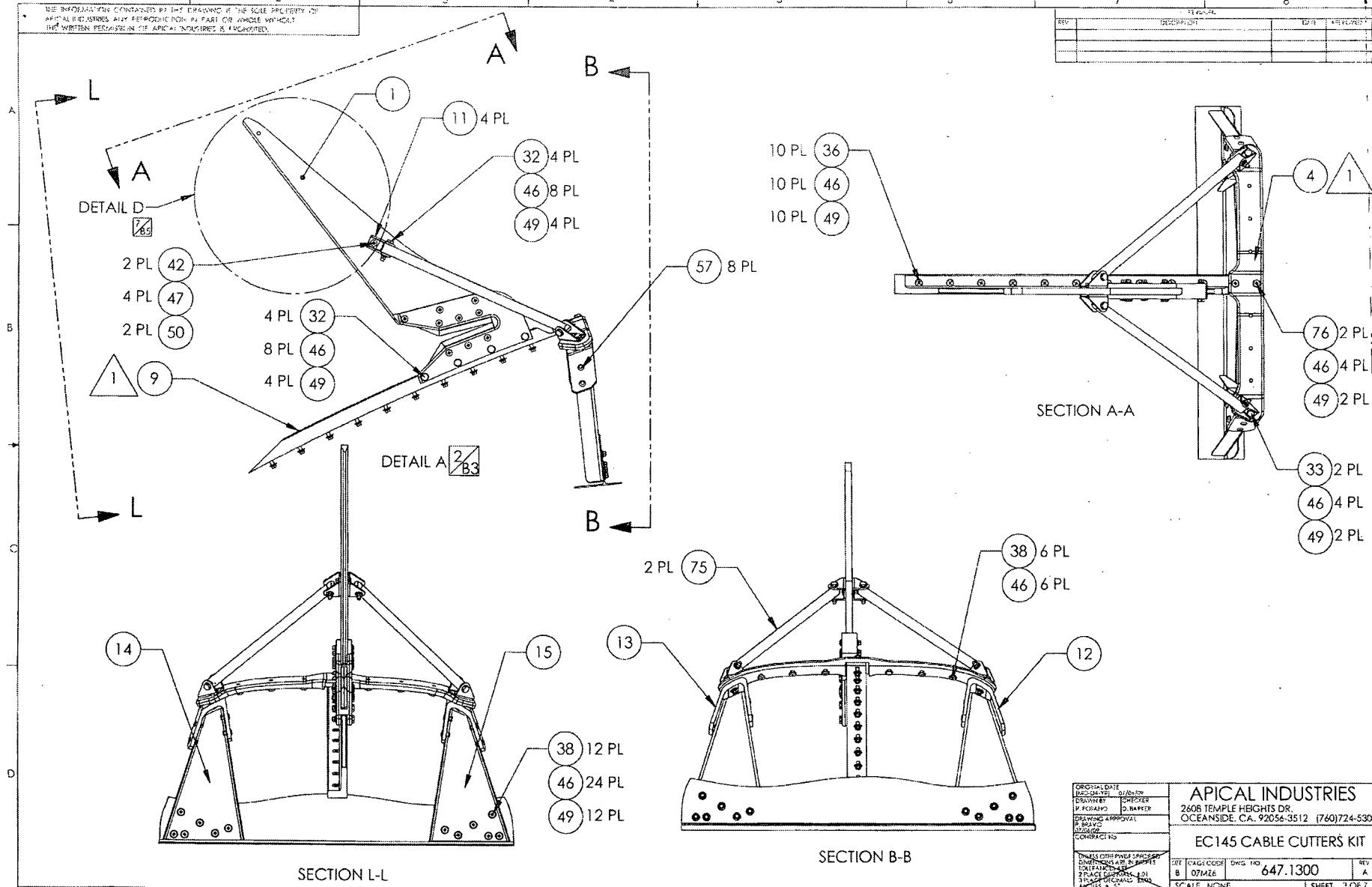
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16	16	32	601.2626	BOLT	AN3-11A		
6	8	31	601.2638	WASHER	NAS1149F0432P		
4	4	30	601.3002	BOLT	NAS6604-56		
2	2	29	647.1811	SPACER			
4	4	28	647.2511	NUT			
4	4	27	647.2510	SLEEVE			
13	13	26	647.1812	SHIM			
4	4	25	647.1910	CLIP			
1	1	24	647.1810	NOSE DOOR DOUBLER			
1	1	23	647.1818	NOSE DOOR SPACER			
2	2	22	647.1813	ANGLE			
1	1	21	647.1913	TEE			
1	1	20	647.1814	GUSSET, LH			
1	1	19	647.1815	GUSSET, RH			
1	1	18	647.1915	SUPPORT ANGLE			
2	2	17	647.2011	LOWER STRUT			
1	1	16	647.1914	BRACKET			
1	1	15	647.1814	SUPPORT, LH			
1	1	14	647.1617	SUPPORT, RH			
1	1	13	647.1912	BRACKET, LH			
1	1	12	647.1911	BRACKET, RH			
4	4	11	647.0112	STRUT BRACKET			
1	1	10	647.2110	LOWER RAIL			
1	1	9	647.2111	UPPER RAIL			
1	1	8	647.1610	WIPER DEFLECTOR, FWD			
1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT			
2	2	6	647.1701	SKID DEFLECTOR ASSY			
1	1	5	647.3201	GROUNDING CABLE ASSY			
1	1	4	647.2201	CROSS ASSY			
1	1	3	647.1602	DOUBLER ASSY			
1	1	2	647.1402	CUTTER ASSY (LOWER)			
1	1	1	647.1401	CUTTER ASSY (UPPER)			
			647.1303	FIXED PROVISIONS KIT			
			647.1302	REMOVABLE PROVISIONS KIT			
			647.1301	EC145 CABLE CUTTERS KIT			
.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

QTY	PARTS LIST		
	NEXT ASSY (S)		
	DRAFTING DATA NO. DA-VR 07/03/09 DRAWN BY: D. BARBER SUPERVISOR: D. BARBER APPROVED: D. BARBER RELEASER: D. BARBER		
	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)24-5300		
	EC145 CABLE CUTTERS KIT		
	REF. CHECK CODE: DYM62 DWG. NO: 647.1300 REV: A SCALE: NONE SHEET: 1 OF 7		

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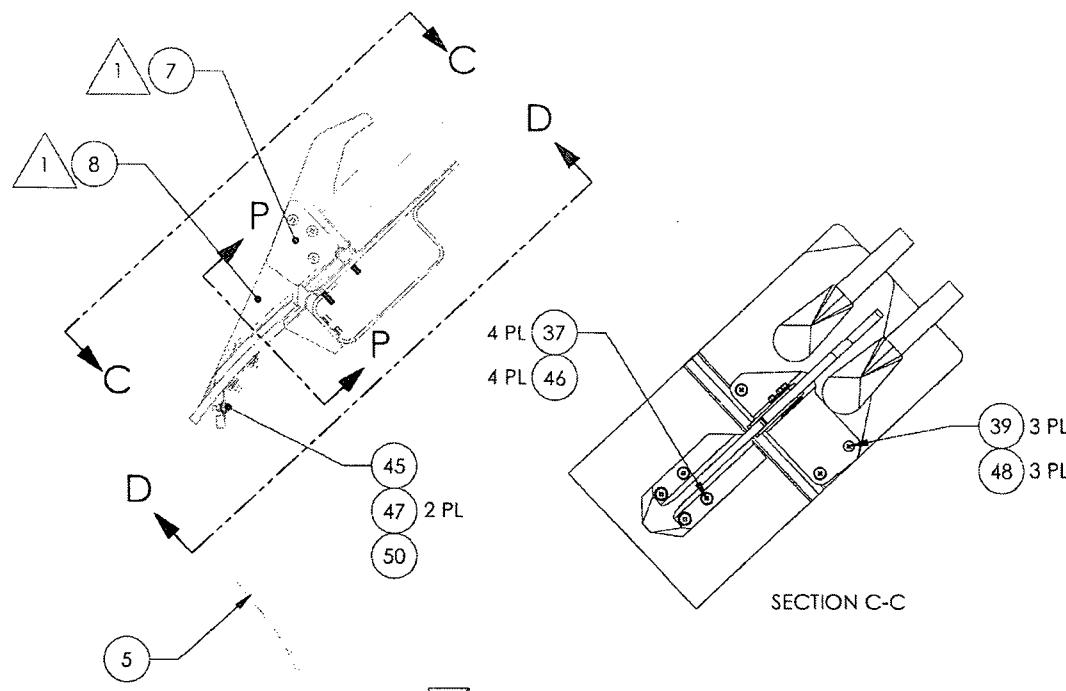
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REV	DESCRIPTION	DATE	BY

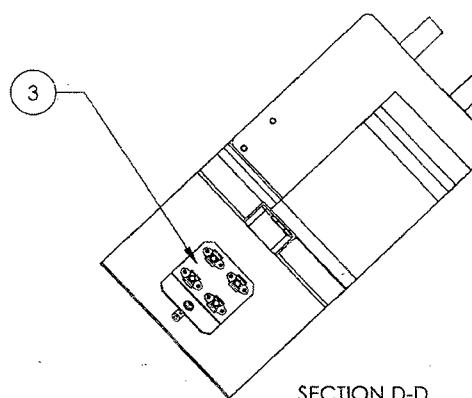


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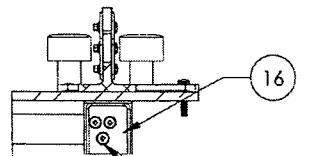
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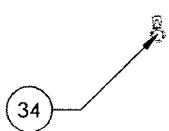
SECTION C-C



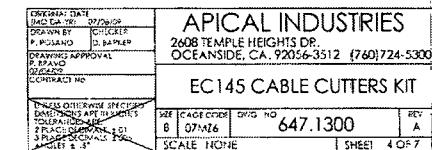
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SECTION P-P

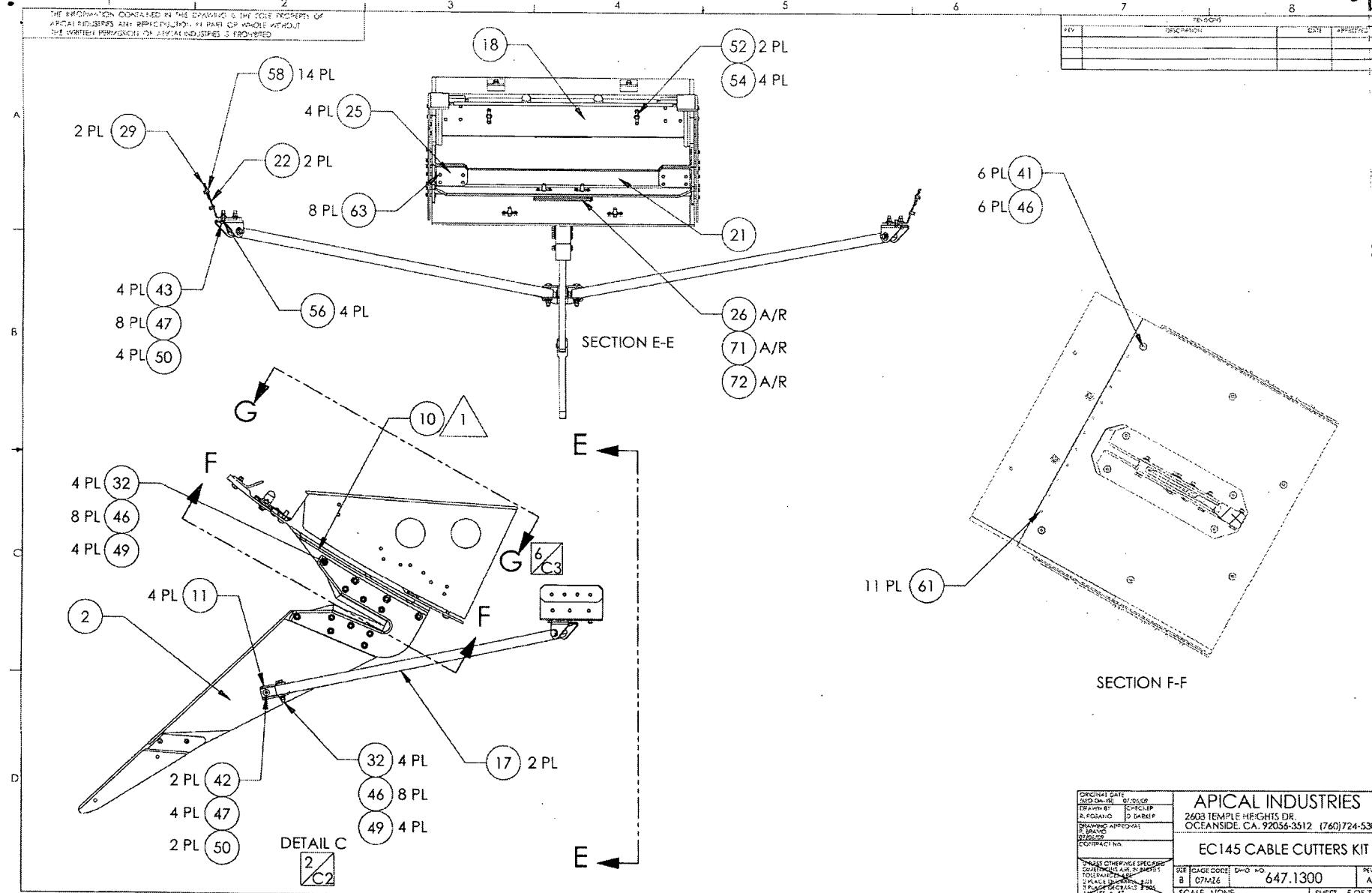


DETAIL B



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ITEM #	DESCRIPTION	QTY	STOCKED	
			IN	OUT
445				

A

```

graph TD
    PL((PL)) --- T1(( ))
    PL --- T2(( ))
    T1 --- T1_1((35))
    T1 --- T1_2((46))
    T2 --- T2_1((52))
    T2 --- T2_2((55))
    T1_1 --- T1_1_1(( ))
    T1_1 --- T1_1_2(( ))
    T1_2 --- T1_2_1(( ))
    T1_2 --- T1_2_2(( ))
    T2_1 --- T2_1_1(( ))
    T2_1 --- T2_1_2(( ))
    T2_2 --- T2_2_1(( ))
    T2_2 --- T2_2_2(( ))
  
```

8

A/R 26
A/R 71
A/R 72

SECTION O-O

3
B1
DETAIL D
SHOWN ISOMETRICALLY
TYPICAL GPS MOUNT KIT INSTALLATION

8

INBOARD

8

SECTION K-K
TYP. 2 PI



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647.1300

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Parts List for Figure 3.1 and Figure 3.2:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
12	1		1	647.1911	BRACKET, RH
13	1		1	647.1912	BRACKET, LH
14	1		1	647.1817	SUPPORT, RH
15	1		1	647.1816	SUPPORT, LH
33*	2	2		601.1874	BOLT (AN3C10A)
38	12		12	601.2459	SCREW (MS27039C1-06)
46	24		24	601.1607	WASHER (NAS1149F0332P)
49	12		12	601.2943	LOCKNUT (MS21042-3)
57	8		8	601.2995	RIVET (CR3213-6-6)

*** One M5 bolt is acceptable should the Strut Brackets already be installed.**

- 3.9 Position the Cross Assy (F/N 4) as before and mark remaining hole locations onto the roof. Drill holes as marked making sure that the holes are perpendicular to the roof.
- 3.10 If the OEM Upper Rail is installed, remove it. Position the Apical Upper Rail (F/N 9) as shown in Figure 3.3, aligning the Upper Rail with the centerline and making sure that the fwd end is in contact with the aircraft surface. If an OEM Upper Rail was previously installed, align the pilot hole in the Upper Rail (F/N 9) with the corresponding hole on the cowling. Mark the two center hole locations from the Cross Assy (F/N 4) on to the aft end of the Upper Rail and drill.
- 3.11 Temporarily assemble Cross Assy and the Upper Rail. Mark hole locations from the cowling onto the Upper Rail. Drill holes 0.201" in diameter and countersink to .439" diameter with 100° chamfer. If there was no previously installed Upper Rail, mark nine hole locations in equal spaces of approximately 1.84" in arc length starting from the countersunk hole towards the far end of the Upper Rail. Proceed to drill and countersink as described above. Match drill the ten holes from the Upper Rail onto the cowling.

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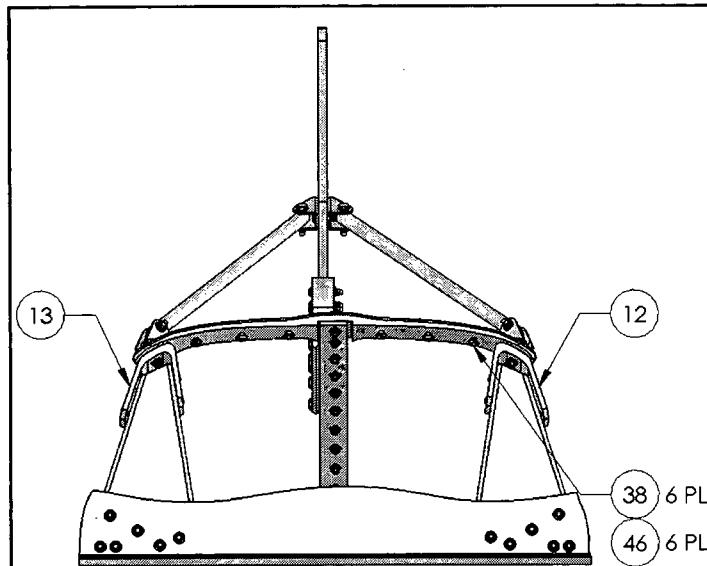


Figure 3.4: Cross Assy Installation

Parts List for Figure 3.3 and Figure 3.4:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
1	1	1		647.1401	CUTTER ASSY (UPPER)
4	1		1	647.2201	CROSS ASSY
9	1		1	647.2111	UPPER RAIL
11	4	2	2	647.0112	STRUT BRACKET
12	1		1	647.1911	BRACKET, RH
13	1		1	647.1912	BRACKET, LH
32	8	8		601.2826	BOLT-(AN3-11A)
33	2	2		601.1874	BOLT_(AN3C10A)
36	10		10	601.2051	SCREW (MS24694C52)
38	6		6	601.2459	SCREW (MS27039C1-06)
42	2	2		601.3224	SCREW(AN525-10R12)
46	44	16	28	601.1607	WASHER (NAS1149F0332P)
49	22	8	14	601.2943	LOCKNUT-(MS21042-3)
75	2	2		647.2010	UPPER STRUT
76	2		2	601.1954	SCREW (MS27039-1-17)

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4.0 WIPER DEFLECTOR (647.1601 & 647.1610)

NOTE

The Wiper Deflector consists of Fixed Provisions only. There are no Removable Provisions. When installing the Apical EC145 Cable Cutters Kit, attention must be given to all steps in this section.

4.1 Layout and mark hole locations on Bracket (F/N 16) as shown in Figure 4.1. Drill holes.

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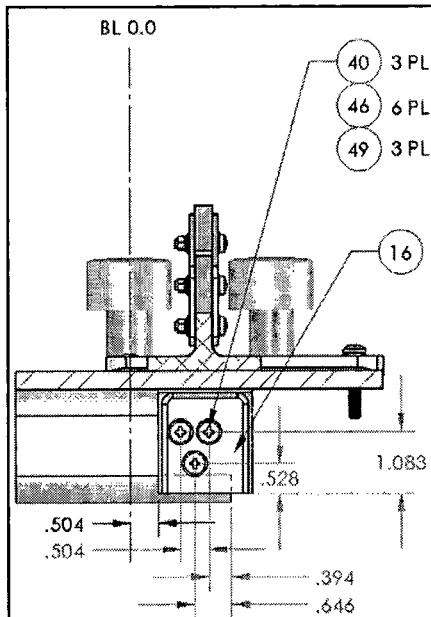


Figure 4.1: Bracket Installation

Parts List for Figure 4.1:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
16	1		1	647.1914	BRACKET
40	3		3	601.2198	SCREW (MS27039-1-07)
46	6		6	601.1607	WASHER (NAS1149F0332P)
49	3		3	601.2943	LOCKNUT (MS21042-3)

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Parts List for Figure 4.2:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
7	1		1	647.1601	AFT WIPER DEFLECTOR ASSY
8	1		1	647.1610	FWD WIPER DEFLECTOR
37	4		4	601.1622	SCREW (MS27039-1-14)
39	3		3	601.2999	SCREW
46	4		4	601.1607	WASHER (NAS1149F0332P)
48	3		3	601.2375	WASHER

- 4.5 Remove the three existing screws from the windshield wiper doubler that are located within the Aft Wiper Deflector Assy mounting area as shown in Figure 4.2.
- 4.6 Apply Sealant (F/N 73) to the base of the Aft Wiper Deflector Assy (F/N 7) and install with new Screws (F/N 39), and Washers (F/N 48) as shown. Prepare one screw as shown in Figure 4.2 for electrical bonding preparation as shown in Appendix A.
- 4.7 Temporarily install the Nosecover and position the Fwd Wiper Deflector (F/N 8) in place against the Aft Wiper Deflector Assy.

NOTE

Make sure there is no gap between the Fwd Wiper Deflector and the forward edge of the Nosecover.

- 4.8 While holding Nosecover in place, transfer drill the holes in the Fwd Wiper Deflector onto the Nosecover. If required, cut back core to a .75" diameter and fill with Magnobond.
- 4.9 Apply Sealant to the base of the Fwd Wiper Deflector and position on the Nosecover and insert Screws (F/N 37) and Washers (F/N 46) to hold the Fwd Wiper Deflector in place.

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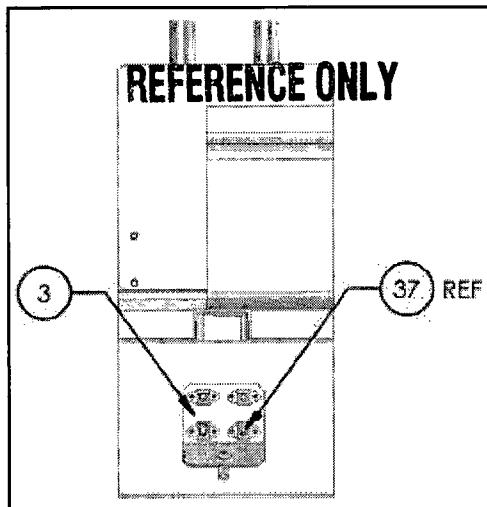


Figure 4.3: Doubler Assy Installation

Parts List for Figure 4.3:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
3	1		1	647.1602	DOUBLER ASSY
37	REF		REF	601.1622	SCREW (MS27039-1-14)

- 4.10 Apply Sealant to the faying surface of the Doubler Assy (F/N 3) and position on the inside of the Nosecover such that the nutplates would pick up the Screws (F/N 37) holding the Fwd Wiper Deflector in place (see Figure 4.3). Tighten Screws and clean off excess Sealant. Prepare one screw as shown in Figure 4.2 for electrical bonding preparation as shown in Appendix A.
- 4.11 Attach Grounding Cable Assy to the Doubler Assy and light housing with Screw, Washer and Nut as shown in Figure 4.4. Attach the other end as shown using a new Bolt, while reusing the existing washer and lockwasher. Install Lockwire. If the light housing is not present, such as when there is a nose radar installed, install the ground cable to the bracket fastening the BNC connector shown in Figure 4.5.

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Parts List for Figure 4.4:

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F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
5	1	/	1	647.3201	GROUNDING CABLE ASSY
7	REF	/	REF	647.1601	AFT WIPER DEFLECTOR ASSY
8	REF	/	REF	647.1610	FWD WIPER DEFLECTOR
34	1	/	1	601.1324	BOLT (AN4CH6A)
45	1	/	1	601.2525	SCREW (MS27039-0807)
47	2	/	2	601.2764	WASHER (NAS1149FN832P)
50	1	/	1	601.2973	LOCKNUT (MS21042-08)

4.12 Touch up reworked areas with MIL-P-23377 Type II Primer.

NOTE

Check the resistance of the Grounding Cable Assy (F/N 5) after installation. A resistance measurement of 0.005 Ohms or lower is satisfactory as per AC 43.13 – 11.3.b



Figure 4.5: BNC Connector for Grounding Cable Assy Installation

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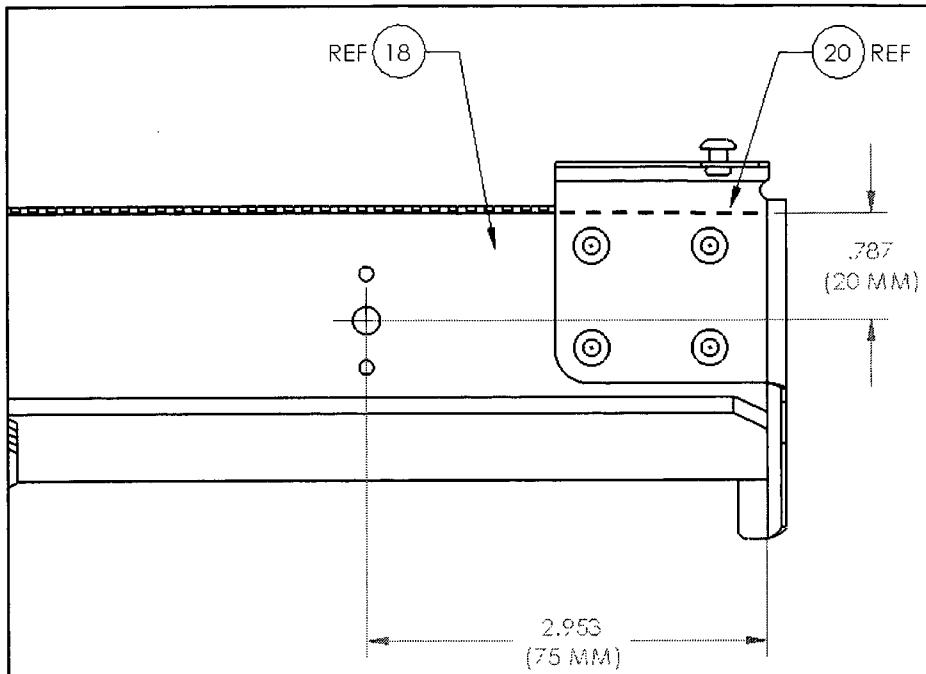


Figure 5.3: Nutplate Hole Location (TYP. 2 PL)

Parts List for Figure 5.2 and Figure 5.3:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
18	1		1	647.1915	SUPPORT ANGLE
19	1		1	647.1815	GUSSET, RH
20	1		1	647.1814	GUSSET, LH

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- 5.6 Reposition and cleco the Support Angle and Gussets to the airframe. Determine the number of Shims (F/N 26) required to fill the gap between the Support Angle (maximum quantity of 5).
- 5.7 Temporarily install Lower Rail (F/N 10) as guide for locating the Tee (F/N 21) and Clips (F/N 25). Position Tee and Clips and temporarily install as shown in Figure 5.4.

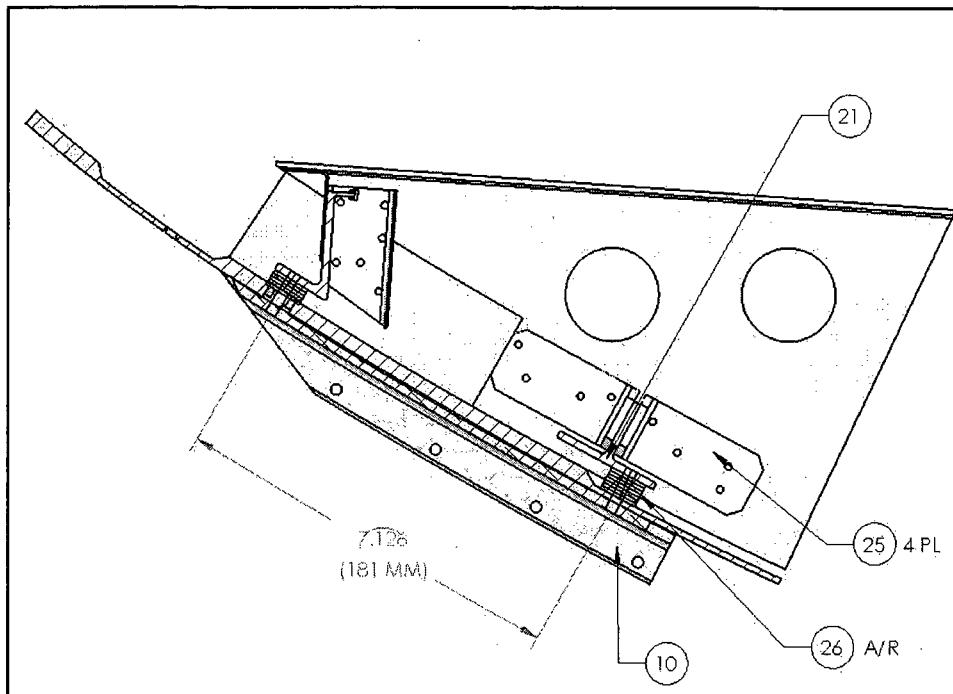


Figure 5.4: Tee and Clips Fitment

Parts List for Figure 5.4:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
10	1	1		647.2110	LOWER RAIL
21	1		1	647.1913	TEE
25	4		4	647.1910	CLIP
26	A/R		A/R	647.1812	SHIM

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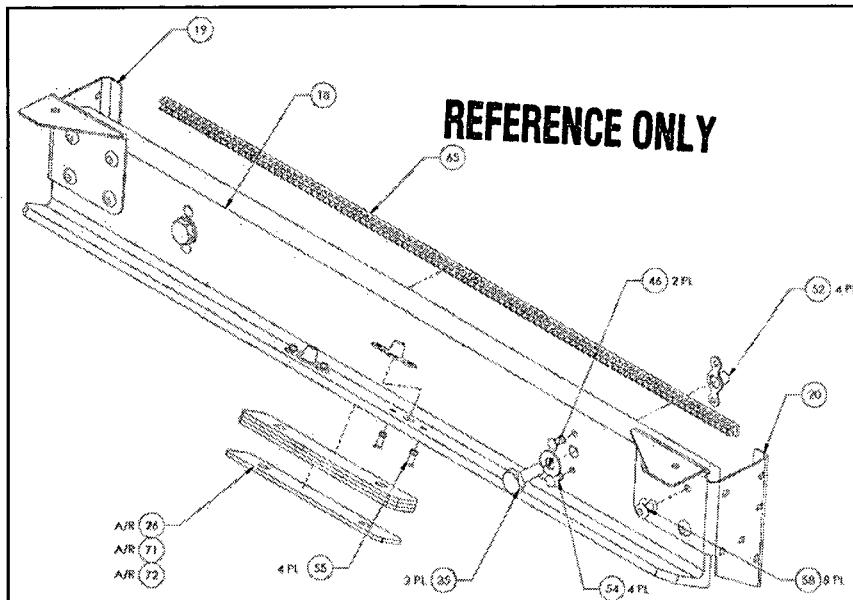


Figure 5.6: Support Angle Installations

Parts List for Figure 5.6:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
18	1		1	647.1915	SUPPORT ANGLE
19	1		1	647.1815	GUSSET, RH
20	1		1	647.1814	GUSSET, LH
26	A/R		A/R	647.1812	SHIM
35	2		2	601.2823	BOLT (AN3-4A)
46	2		2	601.1607	WASHER (NAS1149F0332P)
52	4		4	600.0795	NUTPLATE (MS21047-3)
54	4		4	601.1983	NUTPLATE RIVET (CCR274SS-3-03)
55	4		4	601.2207	NUTPLATE RIVET (CCR264SS-3-03)
58	8		8	601.0790	RIVET (CR3213-4-3)
65	1		1	601.3007	GROMMET (MS21266-2N)
71	A/R		A/R	600.0990	MAGNOBOND 6398 PART A
72	A/R		A/R	600.0991	MAGNOBOND 6398 PART B

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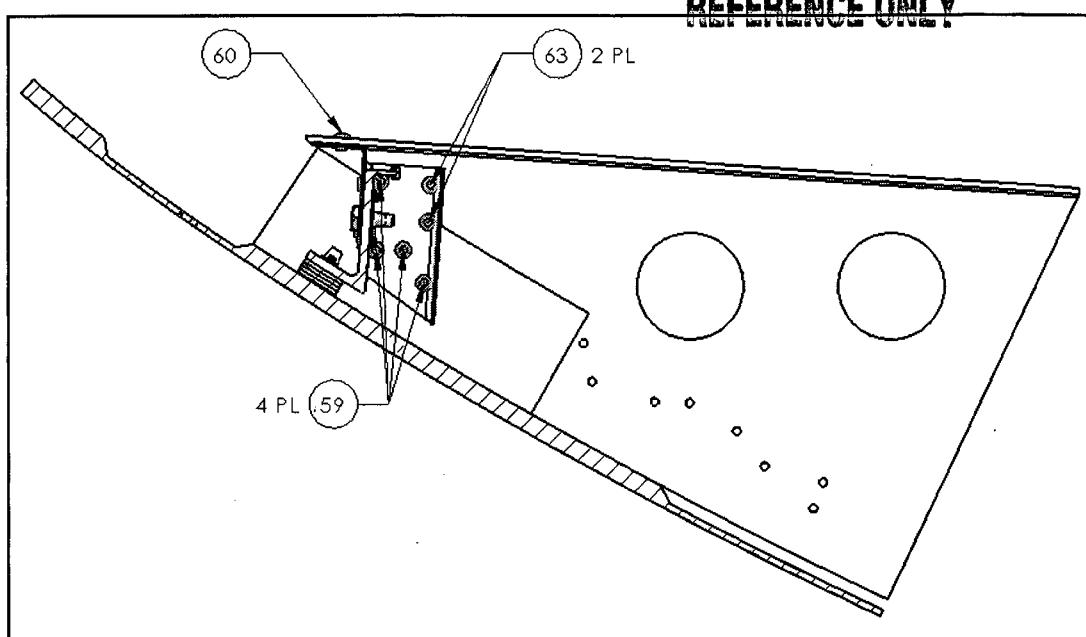


Figure 5.7: Rivet Locations on Airframe for Fwd Intercostal Assembly
(TYP. 2 PL)

Parts List for Figure 5.7:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
59**	8		8	601.1183	RIVET (CR3213-4-5)
60*	2		2	601.1039	RIVET (CR3213-4-2)
63**	4		4	601.2364	RIVET (CR3213-4-8)

*CR3212 Series Cherry Rivets are an acceptable alternative

**CR3523 Series Cherry Rivets are an acceptable alternative

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5.16 Uninstall Tee (F/N 21) and Clips from the airframe and install the Nutplates (F/N 52) and Shims (F/N 26) on the Tee, similarly to the Nutplate and Shim installation for the Support Angle, as shown in Figure 5.8.

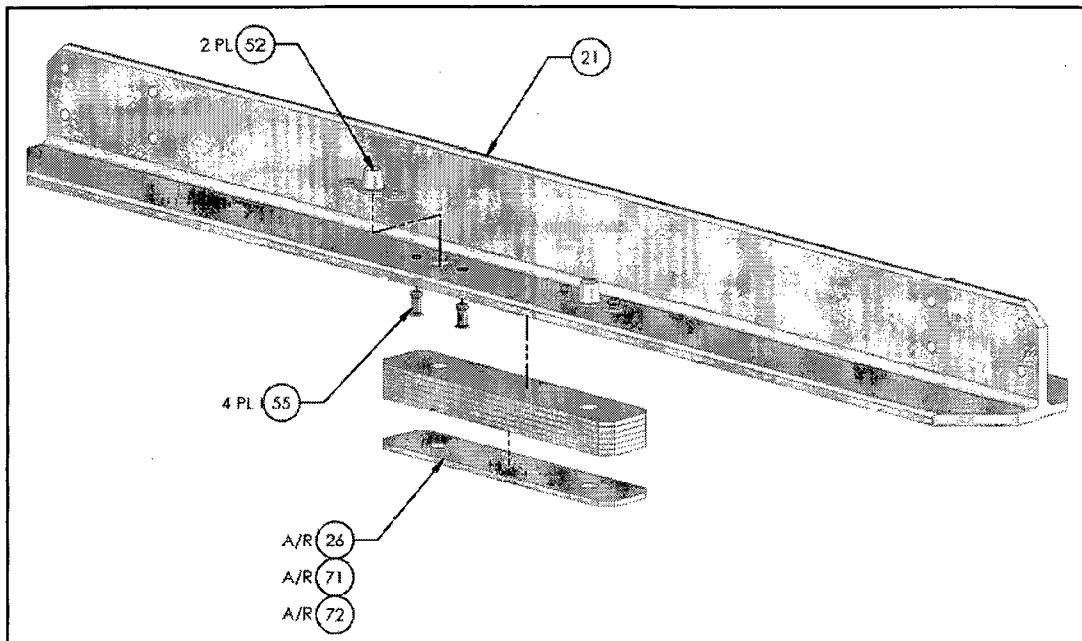


Figure 5.8: Nutplate and Shim Install for Tee

Parts List for Figure 5.8:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
21	1		1	647.1913	TEE
26	A/R		A/R	647.1812	SHIM
52	2		2	600.0795	NUTPLATE (MS21047-3)
55	2		2	601.2207	NUTPLATE RIVET (CCR264SS-3-03)
71	A/R		A/R	600.0990	MAGNOBOND 6398 PART A
72	A/R		A/R	600.0991	MAGNOBOND 6398 PART B

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5.17 Using Magnobond, bond the forward Clips to the airframe, aligning the rivet holes and cleco in place. Apply Magnobond to the aft Clip/airframe faying surface and cleco the aft Clips and Tee into position, making sure all rivet holes are aligned. Prepare riveted connections as indicated in as shown in Figure 5.9 (see Appendix A). Install Rivets (F/N 62 & 63).

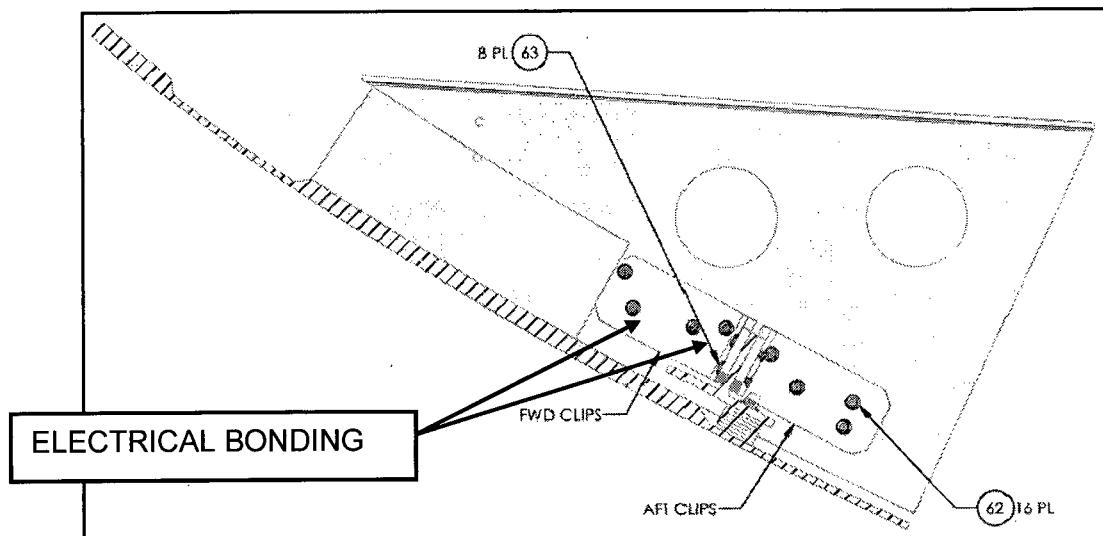


Figure 5.9: Rivet Locations on Airframe for Aft Intercostal Assembly

Parts List for Figure 5.9:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
62*	16	7	16	601.2468	RIVET (CR3213-4-7)
63*	8	7	8	601.2364	RIVET (CR3213-4-8)

* CR3523 Series Cherry Rivets are an acceptable alternative

5.18 Position the Nosecover and match drill the two hole locations from the Support Angle and Tee onto the Nosecover. Open up the fwd holes to 0.561-0.566" diameter and cut back the core. Clean out debris.

5.19 Pot Inserts (F/N 64) using Magnobond and allow to fully cure before assembling screws into place.

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Parts List for Figure 5.10:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
64	2	10	2	601.3008	INSERT
71	A/R	0	A/R	600.0990	MAGNOBOND 6398 PART A
72	A/R	0	A/R	600.0991	MAGNOBOND 6398 PART B

- 5.22 Position Nose Door Doubler (F/N 24) and Nose Door Spacer (F/N 23) and trim as necessary. Transfer drill holes onto the Doubler and Spacer and cleco in place.
- 5.23 Temporarily install Nosecover and transfer drill Camloc holes onto Nosecover. Open up holes to 5/16" diameter.
- 5.24 Open up Camloc holes in Doubler to .437" diameter and locate and drill rivet holes for Camloc Receptacles (F/N 67) and countersink. Treat all resulting exposed metal with MIL-C-81706 (Alodine 1200) then Epoxy primer MIL-P-23377 or their equivalents.
- 5.25 Install Camloc Receptacles (F/N 67) onto Doubler with Nutplate Rivets (F/N 55) and install Doubler and Spacer onto Nosecover using Rivets (F/N 11) as shown in Figure 5.11. Install Camloc Stud (F/N 69) and Camloc Retainer (F/N 68) onto Nosecover.
- 5.26 Position P-seal (P/N 66) on Nosecover and trim as required. Position P-seal onto Doubler and trim for Camloc holes. Install P-seals with Magnobond (F/N 71 & 72).

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Parts List for Figure 5.11:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
23	1		1	647.1818	NOSE DOOR SPACER
24	1		1	647.1810	NOSE DOOR DOUBLER
41	6		6	601.1365	SCREW (MS27039-1-10)
46	6		6	601.1607	WASHER(NAS1149F0332P)
52	6		6	600.0795	NUTPLATE (MS21047-3)
53	12		12	601.2980	NUTPLATE RIVET (CCR264SS-3-04)
55	4		4	601.2207	NUTPLATE RIVET (CCR264SS-3-03)
61	11		11	601.2991	RIVET (CR3213-4-6)
66	A/R		A/R	601.3011	P-SEAL
67	2		2	601.3006	CAMLOC RECEPTACLE
68	2		2	601.3005	CAMLOC RETAINER
69	2		2	601.3004	CAMLOC STUD

5.27 Locate two Angles (F/N 22) and corresponding Spacers (F/N 29) as shown and drill rivet locations and cleco in place, as shown in Figure 5.12.

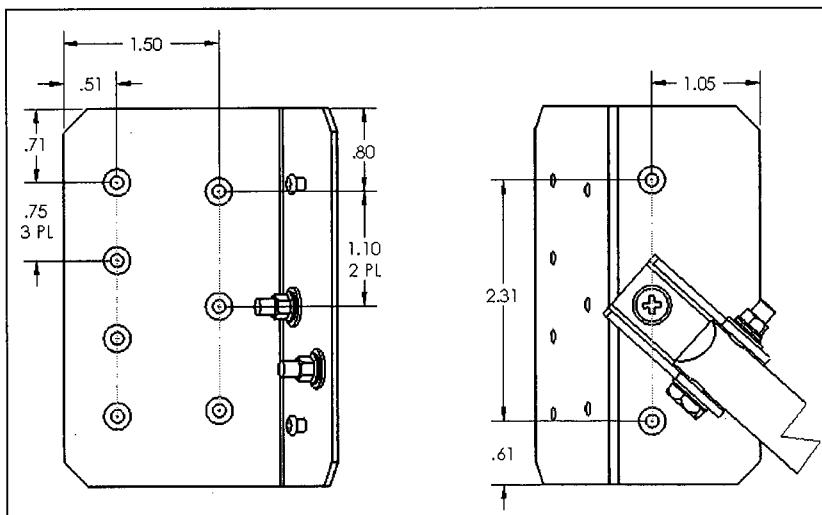


Figure 5.12: Angle Rivet Locations

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NOTE

Find numbers apply to Figure 5.13 only.

Parts List for Figure 5.13:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
2	1	1		647.1402	CUTTER ASSY-(LOWER)
10	REF	REF		647.2110	LOWER RAIL
11	4	4		647.0112	STRUT BRACKET
17	2	2		647.2011	LOWER STRUT
22	2		2	647.1813	ANGLE
29	2		2	647.1811	SPACER
32	8	8		601.2826	BOLT-(AN3-11A)
42	2	2		601.3224	SCREW,(AN525-10R12)
43	4		4	601.3010	SCREW (MS27039-0810)
44	4		4	601.3225	SCREW (MS27039-1-23)
46	20	20		601.1607	WASHER (NAS1149F0332P)
47	8	4	4	601.2764	WASHER (NAS1149FN832P)
49	8	8		601.2943	LOCKNUT-(MS21042-3)
50	2	2		601.2973	LOCKNUT (MS21042-08)
56	4		4	601.1915	RIVET (CR3213-4-4)
58	14		14	601.0790	RIVET (CR3213-4-3)
70	4		4	601.3012	SCREW (MS27039-1-15)

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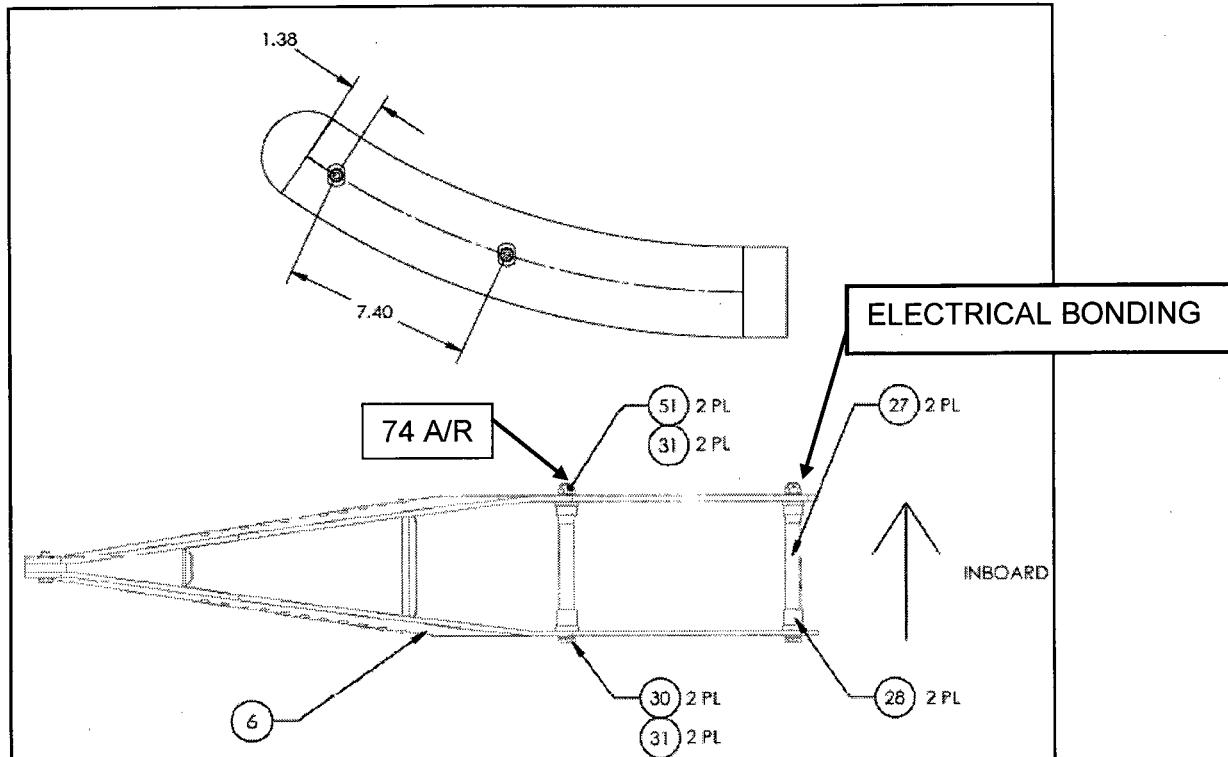


Figure 6.1: Skid Deflector Installation (TYP. 2PL)

Parts List for Figure 6.1:

F/N	QTY 647.1301	QTY 647.1302	QTY 647.1303	PART NUMBER	DESCRIPTION
6	1	1		647.1701	SKID DEFLECTOR ASSY
27	2		2	647.2510	SLEEVE
28	2		2	647.2511	NUT
30	2		2	601.3002	BOLT (NAS6604-66)
31*	4		4	601.2638	WASHER (NAS1149F0432P)
51**	2	2		601.3209	NUT (MS21042L4)
74	A/R	A/R	A/R	601.2045	RTV

*NAS1149F0463P Washers are an acceptable alternative

**AN310-4 Nuts are an acceptable alternative

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